

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A method ~~which generates~~ for generating an IC tester control consisting of numerous test instructions for a plurality of specific test environments, which can generate and measure analog and digital signals for ~~an IC, in particular a mixed-signal IC, wherein~~ comprising:

~~the method obtains~~ obtaining data and control instructions from multidimensional test matrices independent of ~~[[the]] a~~ test environment, ~~such as said multidimensional test matrices~~ comprising one of matrix-like databases or libraries,

~~converting~~ the data and control instructions independent of the test environment ~~are converted~~ by means of a code generator into a syntax which is dependent on the test environment; ~~and which can be integrated~~

integrating the syntax dependent on the test environment into a general syntax dependent on the test environment, so that the syntax dependent on the test environment and the general syntax dependent on the test environment together form a complete control, comprising analog and digital signals, for one of the specific test environments.

2. (Currently amended) The method as claimed in claim 1, wherein, during said converting ~~its conversion phase~~, the code generator employs a library group in which are integrated various libraries which contain ~~at least partial~~ information ~~with respect~~ relating to at least one of:

- a) the test environment,
- b) the syntax dependent on the test environment,
- c) ~~[[the]]~~ test environment resources,
- d) ~~[[the]]~~ a sequence of test methods,

- e) ~~[[the]]~~ standard functions of the test environment,
- f) ~~[[the]]~~ a load board structure,
- g) ~~[[the]]~~ standard functions dependent on the load board, and
- h) ~~[[the]]~~ code generator optimization.

3. (Currently amended) The method as claimed in claim 1, wherein a multidimensional test matrix has, in various dimensions, one or more of:

- ~~in a first dimension,~~ data on ~~[[the]]~~ a number and arrangement of pins of the IC,
- ~~in a further dimension,~~ data on ~~[[the]]~~ a meaning, ~~[[the]]~~ a name and ~~[[the]]~~ a signal flow direction of the pins of the IC,
- ~~in a further dimension,~~ sequences of test instructions,
- ~~in a further dimension,~~ test instruction headings which summarize individual test instructions,
- ~~in one dimension,~~ specifies general test conditions,
- ~~in one dimension,~~ specifies the start conditions for a test,
- ~~in one dimension,~~ specifies test patterns,
- ~~in one dimension,~~ specifies functional descriptions of the tests,
- ~~in one dimension,~~ specifies switching values,
- ~~in one dimension,~~ specifies conditions for quality sorting of ICs.

4. (Currently amended) The method as claimed in claim 1, wherein the code generator comprises at least one of the following components: ~~[[;]]~~

- a DC test generator which reads out and converts the data and control instructions from matrices, which generate DC voltage values for an IC in the test environment,
- an AC test generator which reads out and converts the data and control instructions from matrices, which generate AC voltage values or signal curves for an IC in the test environment,
- a digital test generator which reads out and converts the data and control instructions from matrices, which generate digital voltage values for an IC in the test environment,

a load board generator which reads out and converts the data and control instructions from matrices, which refer to [[the]] resources and requirements with respect to [[the]] load conditions of the load boards of the test environment,

a test rule verifier which checks whether the data and control instructions of the syntax dependent on the test environment can be executed in the test environment, and

the code generator runs through a multistage method, wherein:

in [[the]] a first stage of which the data and control instructions of a matrix are made available to the code generator as source information,

in [[the]] a second stage of which the source information is processed in succession, in each case by one of the components, the last component being the test rule verifier, and,

in [[the]] a third stage of which, the converted data and control instructions are modified by means of an optimizer with respect to resource utilization of the test environment, test speed, test sequences or waiting and idle times between individual data and control instructions.

5. (Currently amended) The method as claimed in claim 1, ~~wherein~~ further comprising:

~~obtaining a processible data sheet of the IC serves as the origin for the matrices independent of the test environment~~ from a processible data sheet of the IC,

~~generating on the basis of which data sheet automated test description~~ documentation from said data sheet ~~documentations are generated from the matrices and name, in a generally legible manner, the~~ specifying at least one of a scope, [[the]] type, and [[the]] duration and the type of the data and control instructions.

6. (Currently amended) The method as claimed in claim 1, wherein signals which are analog and/or digital are read in from the test environment, preferably with a time lag after superposition of signals of the control, in order to be evaluated via mixed-signal test methods, ~~such as, for example, a method~~ including at least one of mixed signal test methods for [[the]] gain or gains, [[the]] voltage ratios, [[the]] frequency responses, [[the]] phase positions, [[the]] wave shapes, [[the]] harmonics and/or the transit-time behavior.

7. (Currently amended) A method ~~which generates~~ for generating an IC tester control, consisting of numerous test instructions, for a plurality of specific test environments, which can generate and measure analog and digital signals for an IC, ~~in particular a mixed-signal IC, wherein~~ comprising:

~~the individual specific test environments differ from one another in their structure and/or their syntax;~~

~~the method obtains~~ obtaining data and control instructions from multidimensional test matrices independent of ~~[[the]]~~ a test environment, ~~such as~~ said multidimensional test matrices comprising one of matrix-like databases or libraries, and

converting the data and control instructions independent of the tester environment ~~are converted~~ by means of a code generator into a syntax which is dependent on the test environment; ~~and which can be integrated~~

integrating the syntax dependent on the test environment into a general syntax dependent on the test environment, so that the syntax dependent on the test environment and the general syntax dependent on the test environment together form a complete control, comprising analog and digital signals, for one of the specific test environments,

the individual specific test environments differ from one another in at least one of structure and syntax.

8. (Currently amended) The method as claimed in claim 7, wherein, ~~in the multidimensional test matrices, it is possible to list~~ test methods which enable both digital and analog signals ~~[[of]]~~ for the control of the test environment to occur synchronously are listed in the multidimensional test matrices.

9. (Currently amended) The method as claimed in claim 8, wherein a multidimensional test matrix has, in various dimensions, one or more of:

~~in a first dimension,~~ data on ~~[[the]]~~ a number and arrangement of pins of the IC,

~~in a further dimension,~~ data on ~~[[the]]~~ a meaning, ~~[[the]]~~ a name and ~~[[the]]~~ a signal flow direction of the pins of the IC,

~~in a further dimension,~~ sequences of test instructions,

~~in a further dimension,~~ test instruction headings which summarize individual test instructions,

~~in one dimension,~~ specifies general test conditions,

~~in one dimension,~~ specifies the start conditions for a test,

~~in one dimension,~~ specifies test patterns,

~~in one dimension,~~ specifies functional descriptions of the tests,

~~in one dimension,~~ specifies switching values,

~~in one dimension,~~ specifies conditions for quality sorting of ICs.

10. (Currently amended) The method as claimed in claim 9, wherein, during said converting its conversion phase, the code generator employs a library group in which are integrated various libraries which contain at least partial information with respect relating to at least one of:

- a) the test environment,
- b) the syntax dependent on the test environment,
- c) ~~[[the]]~~ test environment resources,
- d) ~~[[the]]~~ a sequence of test methods,
- e) ~~[[the]]~~ standard functions of the test environment,
- f) ~~[[the]]~~ a load board structure,
- g) ~~[[the]]~~ standard functions dependent on the load board, and
- h) ~~[[the]]~~ code generator optimization.

11. (Currently amended) The method as claimed in claim 7, wherein ~~furthermore~~ the code generator comprises at least one of the following components: ~~[[;]]~~

a DC test generator which reads out and converts the data and control instructions from matrices, which generate DC voltage values for an IC in the test environment,

an AC test generator which reads out and converts the data and control instructions from matrices, which generate AC voltage values or signal curves for an IC in the test environment,

a digital test generator which reads out and converts the data and control instructions from matrices, which generate digital voltage values for an IC in the test environment,

a load board generator which reads out and converts the data and control instructions from matrices, which refer to [[the]] resources and requirements with respect to [[the]] load conditions of the load boards of the test environment,

a test rule verifier which checks whether the data and control instructions of the syntax dependent on the test environment can be executed in the test environment, and

the code generator runs through a multistage method, wherein:

in [[the]] a first stage of which the data and control instructions of a matrix are made available to the code generator as source information,

in [[the]] a second stage of which the source information is processed in succession, in each case by one of the components, the last component being the test rule verifier, and,

in [[the]] a third stage of which, the converted data and control instructions are modified by means of an optimizer with respect to resource utilization of the test environment, test speed, test sequences or waiting and idle times between individual data and control instructions.

12. (Currently amended) The method as claimed in claim 10, ~~wherein~~ further comprising:

obtaining a processible data sheet of the IC serves as the origin for the matrices independent of the test environment from a processible data sheet of the IC,

generating on the basis of which data sheet automated test description documentation from said data sheet documentations are generated from the matrices and name, in a generally legible manner, the specifying at least one of a scope, [[the]] type, and [[the]] duration and the type of the data and control instructions.

13. (Currently amended) The method as claimed in claim 8, wherein signals which are analog and/or digital are read in from the test environment, preferably with a time lag after superposition

of signals of the control, in order to be evaluated via mixed-signal test methods, ~~such as, for example, a method~~ including at least one of mixed signal test methods for ~~[[the]]~~ gain or gains, ~~[[the]]~~ voltage ratios, ~~[[the]]~~ frequency responses, ~~[[the]]~~ phase positions, ~~[[the]]~~ wave shapes, ~~[[the]]~~ harmonics and/or the transit-time behavior..

14. (Currently amended) A method ~~which generates~~ for generating an IC tester control, consisting of numerous test instructions, for a plurality of specific test environments, which can generate and measure analog and digital signals for an IC, ~~in particular a mixed-signal IC,~~ wherein comprising:

~~the method obtains~~ obtaining data and control instructions from multidimensional test matrices independent of ~~[[the]]~~ a test environment, ~~such as~~ said multidimensional test matrices comprising one of matrix-like databases or libraries, and

converting the data and control instructions independent of the test environment ~~are converted~~ by means of a code generator into a syntax which is dependent on the test environment; ~~and which can be integrated~~

integrating the syntax dependent on the test environment into a general syntax dependent on the test environment, so that the syntax dependent on the test environment and the general syntax dependent on the test environment together form a complete control, comprising analog and digital signals, for one of the specific test environments, and

wherein test methods which allow both digital and analog signals ~~[[of]]~~ for the control of the test environment to occur synchronously ~~can be~~ are listed in the multidimensional test matrices.

15. (Currently amended) The method as claimed in claim 14, wherein, during said converting its ~~conversion~~ phase, the code generator employs a library group in which are integrated various libraries which contain ~~at least partial~~ information ~~with respect~~ relating to at least one of:

- a) the test environment,
- b) the syntax dependent on the test environment,

- c) [[the]] test environment resources,
- d) [[the]] a sequence of test methods,
- e) [[the]] standard functions of the test environment,
- f) [[the]] a load board structure,
- g) [[the]] standard functions dependent on the load board, and
- h) [[the]] code generator optimization.

16. (Currently amended) The method as claimed in claim 15, wherein signals which are analog and/or digital are read in from the test environment, preferably with a time lag after superposition of signals of the control, in order to be evaluated via mixed-signal test methods, ~~such as, for example, a method~~ including at least one of mixed signal test methods for [[the]] gain or gains, [[the]] voltage ratios, [[the]] frequency responses, [[the]] phase positions, [[the]] wave shapes, [[the]] harmonics and/or the transit-time behavior.

17. (Currently amended) The method as claimed in claim 16, wherein a multidimensional test matrix has, in various dimensions, one or more of:

- ~~in a first dimension,~~ data on [[the]] a number and arrangement of pins of the IC,
- ~~in a further dimension,~~ data on [[the]] a meaning, [[the]] a name and [[the]] a signal flow direction of the pins of the IC,
- ~~in a further dimension,~~ sequences of test instructions,
- ~~in a further dimension,~~ test instruction headings which summarize individual test instructions,
- ~~in one dimension,~~ specifies general test conditions,
- ~~in one dimension,~~ specifies the start conditions for a test,
- ~~in one dimension,~~ specifies test patterns,
- ~~in one dimension,~~ specifies functional descriptions of the tests,
- ~~in one dimension,~~ specifies switching values,
- ~~in one dimension,~~ specifies conditions for quality sorting of ICs.

18. (Currently amended) The method as claimed in claim 17, wherein the code generator (80) comprises at least one of the following components:[];

a DC test generator which reads out and converts the data and control instructions from matrices, which generate DC voltage values for an IC in the test environment,

an AC test generator which reads out and converts the data and control instructions from matrices, which generate AC voltage values or signal curves for an IC in the test environment,

a digital test generator which reads out and converts the data and control instructions from matrices, which generate digital voltage values for an IC in the test environment,

a load board generator which reads out and converts the data and control instructions from matrices, which refer to [] the [] resources and requirements with respect to [] the [] load conditions of the load boards of the test environment,

a test rule verifier which checks whether the data and control instructions of the syntax dependent on the test environment can be executed in the test environment, and

the code generator runs through a multistage method, wherein:

in [] the [] a first stage of which the data and control instructions of a matrix are made available to the code generator as source information,

in [] the [] a second stage of which the source information is processed in succession, in each case by one of the components, the last component being the test rule verifier, and,

in [] the [] a third stage of which, the converted data and control instructions are modified by means of an optimizer with respect to resource utilization of a test environment, test speed, test sequences or waiting and idle times between individual data and control instructions.

19. (Currently amended) The method as claimed in claim 18, ~~wherein~~ further comprising:

obtaining a processible data sheet of the IC serves as the origin for the matrices independent of the test environment from a processible data sheet of the IC,

generating on the basis of which data sheet automated test description documentation from said data sheet documentations are generated from the matrices and name, in a generally

~~legible manner, the~~ specifying at least one of a scope, [[the]] type, and [[the]] duration ~~and the type of the data and control instructions.~~

20. (Currently amended) The method as claimed in claim 19, wherein the individual specific test environments differ from one another in at least one of their structure and ~~or their~~ syntax.

21. (Original) A data medium which can be processed by a microprocessor-controlled computer on which a method as claimed in claim 1 is physically incorporated.

22. (Original) A microprocessor-controlled computer having a central operating system which is electrically connected to at least one test environment on which a method as claimed in claim 1 runs.

23. (New) A data medium which can be processed by a microprocessor-controlled computer on which a method as claimed in claim 7 is physically incorporated.

24. (New) A microprocessor-controlled computer having a central operating system which is electrically connected to at least one test environment on which a method as claimed in claim 7 runs.

25. (New) A data medium which can be processed by a microprocessor-controlled computer on which a method as claimed in claim 14 is physically incorporated.

26. (New) A microprocessor-controlled computer having a central operating system which is electrically connected to at least one test environment on which a method as claimed in claim 14 runs.